

In the Abstract

Please amend the Abstract as follows. A clean copy is attached.

~~An apparatus, system, method, and computer program and computer program product are provided for constraining the movement~~ Movement of a graphical hand is constrained when the physical hand controlling the graphical hand does not have a similar physical constraint. ~~The constraining technique may comprise use and analysis~~ An analysis of a revolute-joint-link-spring model in which. ~~In such a model,~~ an uncompressed/unextended spring position represents the corresponding measured joint angle or link position is used. ~~In addition to linear~~ Linear springs which follow Hook's Law, i.e., $F=k*x$, non-linear springs, or ~~other non-linear force functions~~ the like may be employed to obtain the desired result of allowing a graphical joint or link to deviate from what the corresponding measured joint or link provides. ~~In particular, if~~ If a graphical hand configuration ~~corresponding to measured joint and link positions~~ causes a portion of the hand to penetrate a simulated graphical solid object, a mathematical determination is used to compute modified joint and link positions such that the graphical hand part will no longer penetrate the ~~graphical~~ solid object. Such a constraint technique may include solving a spring model such that the various joint and link springs compress or extend to produce modified joint and link positions. ~~Such a constraint technique may also be applied to constrain other graphical body parts and graphical inanimate objects, where corresponding physical controlling, i.e., measured, body parts and inanimate objects do not possess a similar constraint or impediment.~~